

REMARKS

Claims 1-9 and 13-23 remain pending and at issue in this application, in which independent claims include claims 1, 21, and 23. Each of claims 1-9, 13-21, and 23 stands rejected under 35 U.S.C. §103(a) as allegedly obvious over U.S. Patent No. 5,481,484 to Ogawa et al. (hereinafter "Ogawa") in view of U.S. Patent No. 5,220,512 to Watkins et al. (hereinafter "Watkins"). In view of the remarks presented below, Applicants respectfully request reconsideration and favorable action.

Independent claim 1 is directed to a method for displaying data of a **machine control system** and recites, in part, representing a circuit diagram that displays, at least for an element of the system, an electrical connection of the element to other individual elements in the system, and representing status data for the element in the represented circuit diagram. Claim 21 is directed to a device for displaying data of a **machine control system** and generally recites, in part, representing means for representing the status data which has been received for the element, and where the representation of status data which has been received for the element occurs in the represented circuit diagram. Similarly, claim 23 is directed to a system comprising a device in combination with a **machine control system**, wherein the device is adapted to display data of the **machine control system** and recites, in part, representing means for representing the status data which has been received for the element, and where the representation of status data which has been received for the element occurs in the represented circuit diagram.

Neither Ogawa nor Watkins, individually or in combination, can render independent claim 1 obvious, because a person of ordinary skill in the art at the time of the invention would not have combined the Ogawa and Watkins patents as alleged by the examiner. Individually, neither Ogawa nor Watkins discloses or is directed to a **machine control system**. The examiner alleges that "both Ogawa and Watkins teach circuit modeling" (office action at page 3), and alleges that a person skilled in the art would consider it obvious to replace the simulator of Ogawa by the simulated circuit data of Watkins, since Watkins allegedly shows a method, wherein the user interacts with an electronic CAD system by using an object-oriented user

interface, whereby the user may create, select, move, modify and delete objects on the display screen, where objects may represent circuit components, wires, commands, or visual representations of data (Watkins, col. 5, lines 35-40). These alleged facts are apropos of nothing, as neither reference relates to a machine control system and, in any event, modifying a mixed mode simulation of an analog circuit (see Ogawa at Abstract) to include simulated circuit data would not read on the claimed subject matter.

Moreover, no combination of Ogawa and Watkins would disclose or suggest the claimed subject matter to a person of ordinary skill in the art. In keeping with the pattern established by each of the previous office actions, the examiner appears to confuse a method step reciting "representing a circuit diagram" with a representation in a patent application of a circuit diagram. For example, the examiner alleges that Ogawa "teaches representing a circuit diagram (e.g., figure 1, elements of 4, 5, 6, and 8 representing a control circuit process, or [figure] 16a." (Office action at page 4.) In fact, and as even a cursory understanding of the Ogawa document makes clear, none of figures 1, 4, 5, 6, 8, or 16a discloses or even suggests representing a circuit diagram as part of a method related to a machine control system. For example, the specification of Ogawa discloses, at col. 4, line 45, through col. 5, line 25:

FIG. 1 is a block diagram illustrating the configuration of a system according to an embodiment of a mixed mode simulator which embodies the present invention; ...

FIG. 4 is a diagram illustrating an example of data used when a logic simulation is executed, for explaining the structure of the data;

FIG. 5 is a flow chart illustrating a processing procedure of an example of logic simulation executed by a logic simulator;

FIG. 6 is a flow chart illustrating an example of a processing procedure for an event set shown in FIG. 5;

FIG. 8 is a diagram for explaining an ordinary circuit equation and a sparse matrix as an example of the data structure used for executing circuit simulation; ...

FIGS. 16A and 16B are a diagram for explaining an example of a current model for a current calculation performed by a current calculation unit in a digital analyzed circuit portion; ...

None of these figures discloses representing a circuit diagram, much less representing a circuit diagram for the recited element or an electrical connection of that element to another element in the system.

The same is true of Fig. 18, which the examiner alleges discloses "an electrical connection of the element to other individual elements in the system." (Office action at page 4.) While it is true that Fig. 18 discloses an electrical connection, fig. 18 does not disclose an electrical connection of an element displayed in a represented circuit diagram (because no such representation of a circuit diagram is disclosed or suggested).


It appears to the Applicants that the examiner has not considered the technical teaching of either Ogawa or Watkins, but instead has endeavored solely to retrieve keywords found in both the claims and the respective descriptions of Ogawa and Watkins. At best (*i.e.*, ignoring that the recited claim elements are neither disclosed nor suggested by the documents cited by the examiner), this rejection represents ex-post-facto analysis (*i.e.*, impermissible hindsight), characterized by a foreknowledge of the invention, which is not allowable when considering whether an invention would be obvious to a person of ordinary skill in the art at the priority date. See, *e.g.*, *In re McLaughlin* 443 F.2d 1392, 1395 (CCPA 1971) (indicating that it is impermissible hindsight to take into account only knowledge gleaned from applicant's disclosure when reconstructing a claimed invention). For at least these reasons, the alleged combination of Ogawa and Watkins cannot render the pending claims obvious, and Applicants request reconsideration and withdrawal of the rejections.

CONCLUSION

Accordingly, all remaining claims are in condition for allowance for the reasons provided above. Applicants timely file this Response with a Petition for a One-Month Extension of Time, and the required fee, extending the date for response to December 21, 2009. Although Applicants believe that no additional fees or petitions are required, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 13-2855 of Marshall, Gerstein & Borun, LLP under Order No. 30051/41004. Should the Examiner wish to discuss any remaining issue, Applicants kindly request the Examiner to contact the undersigned by telephone at the number below.

December 21, 2009

Respectfully submitted,

By 
Jeremy D. Protas

Registration No.: 61,681
MARSHALL, GERSTEIN & BORUN LLP
233 S. Wacker Drive, Suite 6300
Sears Tower
Chicago, Illinois 60606-6357
(312) 474-6300
Attorney for Applicants